

POWER AMPLIFIER PENTODE

Filament	Coated	
Voltage	2.5	a-c or d-c volts
Current	1.75	amp.
Direct Interelectrode Capacitances:		
Grid to Plate	1.2	μμf
Input	8.6	μμf
Output	13.0	μμf
Maximum Overall Length		5-3/8"
Maximum Diameter		2-1/16"
Bulb		ST-16
Base		Medium 5-Pin

Pin 1-Filament
Pin 2-Plate
Pin 3-Grid
Pin 4-Screen
Pin 5-Filament

③ ② ④ ① ⑤
BOTTOM VIEW

AMPLIFIER – Class A

Operating Conditions and Characteristics:

Filament	2.5	a-c volts
Plate	250 maximum	volts
Screen	250 maximum	volts
Grid *	-16.5	volts
Amp. Fact.	150	
Plate Res.	60000	ohms
Transcond.	2500	μmhos
Plate Cur.	31	ma.
Screen Cur.	6	ma.
Load Res.	7000	ohms
Power Output	2.7 °	watts

° 6% total harmonic distortion.
* Grid volts measured from mid-point of a-c operated filament.

If a single 47 is self-biased, the self-biasing resistor (450 ohms) should be shunted by a suitable filter network to avoid degenerative effects at low audio frequencies. With two 47's in push-pull, the filter network may be omitted across the resistor (225 ohms).

Transformer or impedance input-coupling devices are recommended. If, however, resistance coupling is employed, a grid resistor limited to 0.5 megohm may be used under self-bias conditions. Without self-bias, the grid resistor should not exceed 50000 ohms.

AVERAGE CHARACTERISTICS

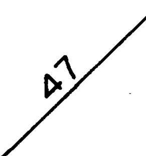
TYPE 47
E_f=2.5 VOLTS D.C.
PLATE VOLTS=250
SCREEN VOLTS=250

μ
gm
r_p

TRANSCONDUCTANCE (gm) MICROMHOS: 0, 800, 1600, 2400, 3200, 4000
PLATE RESISTANCE (r_p) THOUSANDS OF OHMS / AMPLIFICATION FACTOR (μ): 0, 40, 80, 120, 160, 200, 240
CONTROL-GRID VOLTS: -32, -24, -16, -8, 0

92C-5136

RCA RADIOTRON DIVISION
RCA MANUFACTURING COMPANY, INC.



RCA Cunningham Radiotron Radio Tubes

RCA-47



AVERAGE PLATE CHARACTERISTICS

E_f=2.5 VOLTS D.C.

SCREEN VOLTS=250

CONTROL-GRID VOLTS E_{c1}=0

-4

-8

-12

-16

-15.3

E_{c1}=-20

-24

-28

-30.5

-32

LOAD RESISTANCE=7000 OHMS

PLATE VOLTS

0 80 160 240 320 400 480 560

PLATE MILLIAMPERES

80 70 60 50 40 30 20 10 0

JAN.29,1934

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925—5137R2